

*Denise,
claims 1-12, 22-25
are canceled in
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ATTENTION: EXAMINER CHARLES C. CHOW

Subject: AMENDED SUPPLEMENTAL AMENDMENT

Application Number: 09/597,607 Filed: 06/20/2000
Group Art Unit: 2684 Examiner: Charles C. Chow.

Dear Sir,

Enclosed is a fax transmission consisting of a total of 11 pages including this cover page for delivery and attention of the above referenced examiner, Charles C. Chow.

Respectfully,



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I hereby certify that this correspondence is being deposited with the United States Postal Service as Express Mail in an envelope addressed to: Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313 on 12/02/2004; and was also faxed to the USPTO Fax center on the same day.

Signed: Raman K. Rao Date: 12/02/2004
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s)	:	RAO		
Serial No.	:	09/597,607		Group Art Unit: 2684
Filed		06/20/2000		Examiner: Chow, C. C.
For:	Secure and Custom Configurable			
Input/Output Scheme				

AMENDED SUPPLEMENTAL AMENDMENT

Commissioner for Patents
Alexandria, VA 22313

Sir:

The applicant respectfully submits this amended supplemental amendment to cancel claims 1-12, 22, 23 and 24 that were rejected in the office action dated 10/05/2004. The supplemental amendment filed 11/29/04 did not indicate that the claims 1-12 are cancelled. The applicant respectfully requests acceptance of the correction

A Notice of Allowance is requested.

AMENDMENTSIN THE CLAIMS:

Claims 1-12 (Cancelled)

13. (previously presented) A multifunction communication device, including a mobile device or cellular telephone, the device comprising
 an intelligent keyboard system, the keyboard including central portable compute, command and control means for voice and data information;
 the intelligent keyboard including a touch screen display for displaying selected functional text and graphics;
 a central server;
 means for communicating between the server and the mobile device including the intelligent keyboard system;
 the mobile device including the intelligent keyboard system providing text, graphics and data from and to the server;
 the intelligent keyboard system including a touch screen input;
 means for configuring the touch screen input in a stand alone manner;
 means for displaying the selected functionality on the touch screen display;
 means for actuating the input and output functionality on the touch screen display by touch sensitive means,
 means for storing one or more types of full or partial function touch screen enabled keyboard menus in a look up table within the mobile device including the intelligent keyboard and/or the central server;
 and
 means for enabling the functionality of the keyboard menus.

14. (previously presented) The intelligent keyboard system of claim 13 comprising
 means for communicating between the intelligent keyboard and the servers by wired or wireless means,
 means for configuring the touch screen input using the processing power of the servers.

15. (Currently amended) An intelligent keyboard system of claim 13 further comprising
~~a Multi-channel Multiplexing Transmitter and Receiver~~ multi channel multiplexing transmitter/receiver,
~~the Multi-channel Multiplexing Transmitter and Receiver~~ multi channel multiplexing transmitter/receiver having enabled with one or more input and output channels for wired or wireless communication of voice, text, graphics and data.

16. (previously presented) An intelligent keyboard system of claim 13 comprising
 means for communicating on multiple input and output channels voice, text, graphics and data.

17. (previously presented) An intelligent keyboard system of claim 13 further comprising
means for maintaining, modifying, personalizing, customizing look up tables and databases within the
intelligent keyboard or the central server;
means for maintaining one or more menus related to standard keyboard, individual key and/or groups
of keys within the intelligent keyboard or the central server
means for dynamically configuring the entire standard keyboard, an individual key and or groups of
keys for one or more desired functions.

18. (previously presented) The intelligent keyboard system of claim 13 comprising the
functions of
a cellular telephone;
a PDA;
a mobile computer;
an intelligent appliance.

19. (previously presented) An intelligent keyboard system comprising
a central server,
a mobile device configured with an intelligent keyboard including a standard full function keyboard or
a partial function light enabled keyboard with no characters pre-printed on all or some of the keys;
means for wired or wireless communication between a mobile device and a central server,
means for dynamically selecting a desired individual key or group of keys for a different key function
inclusive of different characters, icons and functions,
means for dynamically altering and configuring a selected individual key or a group of keys for a
different and altered character, icon and function,
means for dynamically indicating by light the original or altered key functions on the individual light
enabled keys and groups of keys;
means for an altered key and a groups of keys to light up with one or more colors, characters and or
icons to indicate an altered keyboard menu;
means for configuring an intelligent keyboard including a light enabled keyboard for use in one or
more languages;
means for storing one or more key functions and keyboard menus related to an individual key, group
of keys or the entire keyboard within a mobile device, a central server including a combination of the
mobile device and a central server,
means for utilizing the original key functions or altered key functions and keyboard menus using the
processing power resident within the mobile device, using the processing power of a central server
including a combination of the processing power of the mobile device and a central server;
means for executing desired keyboard actions using a desired keyboard menu at a desired time.

20. (Currently amended) An intelligent keyboard system of claim 19 comprising
a mobile device configured with an intelligent keyboard that includes,
a full function standard keyboard with keys that are key stroke sensitive;
means of the full function standard stroke sensitive keys surrounded by touch screen sensitive keys
means of stroke sensitive keys configured within a field of the [a] touch screen display;
means of utilizing the standard stroke sensitive keyboard functionality and/or touch screen sensitive
input functionality;
means for configuring the touch screen sensitive keys to be on or off as desired by the user;

means for displaying the desired individual key functionality on the touch screen display;
means for selecting the desired menus for dynamically configuring the keyboard;
means for selecting standard key stroke functionality, touch screen sensitive functionality and/or both means contemporaneously.

21. (Currently amended) An intelligent keyboard system of claim 19 comprising a mobile device configured with an intelligent keyboard that includes,
a separate key stroke sensitive keyboard;
a separate touch screen sensitive keyboard area;
one or more display areas;
means for displaying the altered keyboard functionality in a display window;
means for viewing the desired keyboard functionality in a display window;
means for utilizing the standard key stroke sensitive keyboard input method and/or;
means for utilizing the touch screen sensitive pen or stylus based input method;
means for contemporaneous communication in the same or different languages utilizing a stroke sensitive keyboard, a touch screen keyboard and one or more display areas;
means for processing the different menus and data using the computational and communication capabilities of the intelligent keyboard by itself or in conjunction with a central, local and or network server.

22. (Cancelled)

23. (Cancelled)

24. (Cancelled)

25. (Cancelled)

26. (previously presented) An intelligent keyboard system of claim 13 further comprising
means for selecting by audible means, one or more touch screen enabled keyboard menus in one or more languages;
means wherein the audible method is inclusive of voice and sounds;
means wherein the voice and sounds represent one or more discrete or macro functions;
means wherein the audible discrete or macro functions are enabled in one or more selected languages;
means wherein the audible discrete and macro functions are resident in one or more look up tables within the intelligent keyboard or within the local or network server;
means for selecting the discrete and macro functions by audible or touch screen method;
means for enabling the functionality of the discrete and macro functions by audible methods and or;
means for enabling the functionality of the discrete and macro functions by touch screen method;
means wherein standard keystroke and touch screen input are enabled singly or in combination by sound and voice;
means for operating the intelligent keyboard in a stand alone manner and or in conjunction with a local or network server.

27. (Currently amended) A intelligent keyboard system of claim 13 comprising
a plurality of communication devices including intelligent keyboards
a central, local or network server;

means for wired or wireless communication;
 means for the individual communication device including the intelligent keyboard to select one or more touch screen or audible keyboard input methods in one or more languages;
 means for enabling real time translation between one or more disparate touch screen enabled keyboard input systems;
 means for executing said translations within the communication device including intelligent keyboard itself or in conjunction with the local or network server;
 means for real time communication between different communication devices including intelligent keyboards and like function devices in the same or different language;
 means wherein one or more touch screen enabled keyboard menus are stored, downloaded, uploaded, modified, updated and shared by one or more communication devices including intelligent keyboard systems and like function devices acting collaboratively with each other and/or
 means for collaboration between communication devices including intelligent keyboard systems in conjunction with a local or network server.

28. (Previously presented) An intelligent keyboard system of claim 13 that further comprising
 means for assigning a unique identifying number to one or more intelligent keyboards and or like function devices;
 means for assigning another unique identifying number to one or more local or network servers;
 means for secure and intended communication by wired or wireless means with one or more intelligent keyboards and/or local or network servers;
 means for initiating, maintaining and terminating communication between selected servers and intelligent appliances and devices;
 means for tracking said communication;

means for enabling collaboration in one or more languages, using same or different types of keyboard input methods;
 means for collaborating being text based, voice based or sound based;
 means for collaborating being enabled utilizing same or different touch screen enabled keyboard menus;
 means for enabling collaboration by having the intelligent keyboards, local servers and network servers being in wired or wireless communication;
 means for viewing, sharing, annotating, modifying and editing the same document and file in same or different language;
 means for collaborating being enabled by utilizing the processing power of the intelligent keyboard itself or the local or network server.

29. (previously presented) The intelligent keyboard system of claim 13 further comprising
 means for positioning the selected touch screen enabled keyboard menu in one or more locations on the touch screen display as desired by the user; and/or
 means wherein the touch screen enabled keyboard menu is moved from one location to another within the touch screen display window;
 means wherein one or more touch screen enabled keyboard menus are open contemporaneously in the same or different display window;
 means for sizing one or more keyboard menus as desired by the user in one or more display windows.

30. (previously presented) The intelligent keyboard system of claim 13, comprising
means for maintaining customized and personalized touch screen enabled keyboard menus;
means for selecting a desired touch screen sensitive menu or keyboard menu;
means for associating voice and sounds for each character that comprises the selected keyboard menu;
means for associating voice and sounds for one or more groups of characters that comprises the
selected keyboard menu;
means for maintaining the appropriate look up tables that determine the relationship between the
individual or groups of characters and the voice and sounds;
means for maintaining said look up tables within the intelligent keyboard or the local or network
server;
means for processing the look up tables and related translations in a standalone manner within the
intelligent keyboard or in conjunction with a local or network server;
means for activating by touch sensitive method a character and or groups of characters;
means for associating the selected character and or group of characters to the desired voice and or
sound from the look up table;
means for generating the desired display, voice and/or sound.

31. (previously presented) The intelligent keyboard system of claim 13 further comprising
means for generating text as each character or group of characters is activated by touch means;
the text being in the desired language for display and further utility;
means for generating real time voice or sound as each character and or group of characters is
depressed;
means for enabling such voice and sounds to be transformed into recognizable speech or preset sounds
in one or more languages.

32. (previously presented) A mobile device communication system comprising
one or more mobile devices including intelligent keyboard systems that are touch screen, voice and
audio enabled;
a central server, a local server and a network server;
means for enabling the central server as a secure and trusted escrow server;
means for maintaining the control of the central server with an independent and mutually trusted third
party;
means for wired or wireless communication;
means for collaborating between the mobile devices including intelligent keyboards and the central
server or a local server or a network server;
means for collaborating between and among a plurality of mobile devices including intelligent
keyboards.

33. (previously presented) An intelligent keyboard system of claim 32 further comprising
means for collaborating in one or more languages in a real time basis between a plurality of mobile
devices including intelligent keyboard systems;
means for enabling the mobile devices with intelligent keyboards and like function devices for
authentication, trust and permission levels;
means for maintaining the authentication and permission levels by a central server;
means for initiating the collaboration and or escrow procedures for a specific purpose;
means for initiating and conducting the collaboration and/or escrow process for contemporaneous use
or for use by one or more parties at a desired time.

34. (Previously presented) An intelligent keyboard system of claim 32 further comprising
means for viewing, sharing, annotating, modifying, editing the text document, graphics, image, video,
audio, sound and data and or combinations thereof as a collaborative product;
means for defining and working with different types of collaborative product that is inclusive of text,
voice, sound, audio, image, video, graphics and data;
means for accessing and using the collaborative product in a contemporaneous manner and/or at a
later time by one or more users;
means for maintaining revision control by the central server or a designated intelligent keyboard user;
means for time stamping the access and actions of one or more parties to the collaborative work
product in progress;
means for maintaining electronically valid signatures images and authentication files for each user that
is party to the said transaction;
means for providing a signature window on a touch screen of the intelligent keyboard or like function
device;
means for providing a one or more windows for the signature of witnesses if needed in the intelligent
keyboard or like function device;
means for acquiring and maintaining relevant data about the keyboard users and witnesses.

35. (Currently amended) An intelligent keyboard system of claim 32 that further comprising
means for negotiating the final version of the collaboration product;
means for reaching agreement on the final version of the collaborative product by the relevant parties
to the collaboration;
means for indicating agreement by both parties of their willingness to approve and sign off on the
particular collaborative product;
means for approving and signing of the collaborative work product in the touch screen signature
windows of each of the mobile devices including the intelligent keyboard, by all parties
simultaneously or at designated times by one or more parties;
means for executing said signatures on a touch sensitive screen by pen based, stylus based or other
methods;
means for comparing said signatures to signature images, signature strokes and hand written
signatures on file;
means for authenticating the signatures by hand writing recognition software and other means;
means for notifying all parties to the transaction that the collaborative process has been concluded;
means for executing the entire collaborative process by leveraging the wired or wireless
communication means and computing capabilities of each of the intelligent keyboards enabled mobile
devices and or the central server.

36. (Currently amended) An intelligent keyboard system of claim 32 further comprising
means for wired or wireless communication and collaboration between stationary devices, mobile
devices, intelligent appliances and one or more local, network servers, and or escrow servers;
means for direct collaboration for gaming, entertainment, and educational applications between one or

more mobile and stationary device users; including
means for collaborating for gaming, entertainment and educational and other applications between one or more users in conjunction with a local or network server.

37. (Currently amended) An intelligent keyboard system of claim 32 further comprising
means for acquiring a finger print of one or more users by ink and paper, digitizing or other means for
baseline line data archiving;
means for digitizing the finger print data
means for maintaining the finger print data in a database and relevant look up tables;
means for acquiring the selected user's finger print in a touch screen window by imaging and or
digitizing methods;
means for digitizing the finger print acquired by said touch sensitive and or imaging means;
means for time stamping the finger print acquisition process;
means for authenticating the real time finger print process by a witness or trusted escrow agent;
means for comparing the acquired finger print data with the original finger print data in the database
maintained by a escrow server;
means for utilizing the wired or wireless communication and computing capabilities of the intelligent
keyboard and or the central server or escrow server for authentication and other functions.

38. (Currently amended) The intelligent keyboard system of claim 32 further comprising
means for authentication by voice recognition means, including
means for contemporaneous authentication by signature means in a touch screen window, by finger
print means in a touch screen window and by voice recognition means;
means wherein the voice files associated with the specific user are maintained by the central server or
escrow server for authentication purposes,
means for authentication by one or more of said selected authentication methods.

39. (Currently amended) The intelligent keyboard system of claim 32 further comprising
means for contemporaneous authentication by signature means in a touch screen window,
means for authentication by finger print methods in a touch screen window,
means for authentication by voice recognition methods;
means for maintaining the photographic images of users and objects in a database and look up tables
resident on the intelligent keyboard and or the central server;
means for real time photographic image acquisitions;
means for comparing and authenticating real time photographic images in conjunction with the
databases resident on the intelligent keyboard and or the trusted central escrow server;
means for authentication by one or more of said selected authentication methods.

40. (Currently amended) The intelligent keyboard system of claim 32 further comprising
means for acquiring a retinal scan of a user;
means wherein the retinal scan image files associated with the specific user are maintained in a
database and look up tables by the central server for authentication purposes; including
means for associating voice, finger print, photo and retinal scan data of a user;
means for transmitting and receiving by wired or wireless means by the intelligent keyboard of the
data;
means for communicating between the intelligent keyboard and the central server;
means for authenticating of the relevant data in conjunction with a trusted central server,
means for authentication by one or more of said selected authentication methods.

41. (Currently amended) The intelligent keyboard system of claim 32 further comprising
means for unique mobile device identification by one or more methods inclusive of mobile IP, static
IP and dynamic IP address and or other system identification means;
means for time determination via a time determining server,
means for location determination via a global positioning system and server;
means for providing different levels of security, authentication and control via a local, central and or
network server;
means for wired and wireless communication between one or more intelligent keyboards and servers;
means for authenticating the identity including the time and location of a mobile device in conjunction
with a trusted central and or escrow server.

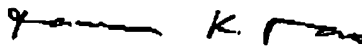
42. (previously presented) An intelligent keyboard system comprising
one or more intelligent keyboard devices;
one or more mobile devices,
one or more intelligent appliances;
a central, local or network server;
means for unique identification and addressing of the intelligent devices;
means for configuring an intelligent keyboard as a wired or wireless remote controller;
means for real time selection and installation on the controller, one or more discrete and specific
action control icons resident on a database within the intelligent keyboard and or a local or network
server;
means for displaying the discrete and macro function action icons on a touch screen input and display;
means for actuating the icons by touch screen input methods that include pen based, stylus based and
other touch sensitive methods;
means for maintaining one or more customized icons, macros and touch screen enabled utilities on the
intelligent keyboard, a central server or the intelligent appliance;
means for installing said standard or customized icons, macros and utilities on the intelligent
appliance and the intelligent keyboard and like function devices;
means for controlling the intelligent appliance via the intelligent keyboard acting in a standalone
manner or in conjunction with a central server, a local server or a network server;
means for enhanced processing and communication between the servers, the intelligent appliances and
the intelligent keyboard device to execute specific command, control and computational related tasks.

REMARKS

This amended Supplemental Amendment is submitted in order to include the cancellation of claims 1-12 in addition to the cancellation of the claims 22, 23, 24 and 25.

In view of the foregoing, it is believed that the present application is now in condition for allowance.

Respectfully submitted,



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